GIG CYMRU NHS WALES

A guide to

Childhood immunisations

for babies up to 13 months of age

immunisation

the safest way to protect your child

‘The two public health interventions that have had the greatest impact on the world’s health are clean water and vaccines.’

World Health Organization

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This guide describes all the routine childhood immunisations for babies up to 13 months of age.

Contents

Summary

Which immunisations will my baby have at 2, 3 and 4 months and then again between 12 and 13 months of age?

Your baby will have immunisations against:

Diseases and vaccines	2 months	3 months	4 months	Between 12 & 13 months
diphtheria, tetanus, pertussis (whooping cough), polio, *Haemophilus influenzae* type b (Hib) – known as the DTaP-IPV-Hib (5-in-1) vaccine	☐	☐	☐	
pneumococcal infection – the PCV13 vaccine	☐		☐	
meningococcal infection – the MenC vaccine		☐	☐	
Haemophilus influenzae type b (Hib) and meningitis C – the Hib/MenC vaccine				☐
measles, mumps and rubella – the MMR vaccine				☐
pneumococcal infection – the PCV13 vaccine				☐

Common questions about immunisation

What is immunisation?

Immunisation is a way of protecting against serious diseases. Once we have been immunised, our bodies are better able to fight those diseases if we come into contact with them.

How do vaccines work?

There are some diseases that can kill children or cause lasting damage to their health. Vaccines contain a small part of the bacterium or virus that causes a disease, or tiny amounts of the chemicals that the bacterium produces. Vaccines work by causing the body's immune system to make antibodies (substances that fight off infection and disease). Then if your child comes into contact with the infection, the antibodies will recognise it and be ready to protect him or her.

When should my baby be immunised?

It is important that your baby has their immunisations at the right age and in the right number of doses to ensure that he or she is fully protected now and in later life. Vaccines are recommended at certain ages based on studies showing when children are at highest risk for the different diseases and at what age vaccines work best. The first routine vaccines are given at two, three and four months old. Children will be given further doses of these immunisations when they are between 12 and 13 months old, then at around 3 years and 4 months of age (before school) and again from 13 years of age (see the table at the end of this leaflet).

Why are babies vaccinated so early?

Some diseases can be particularly serious in young babies so it is important to make sure that they are protected as early as possible.

Why does my baby need more than one dose of each vaccine?

Most immunisations have to be given more than once to fully protect your child. Each dose boosts immunity to a good, protective level. For example, three doses of DTaP/IPV/Hib (5-in-1) vaccine are needed to provide the best protection. Booster doses before school entry and in the teenage years extend the protection into later life.

How will I know when my baby's immunisations are due?

Your GP practice, health centre or baby clinic will send you an appointment for your baby's immunisation. If you can't make this appointment, contact them to make another one. All routine childhood immunisations are free.

What if I missed the appointment?

If you missed or delayed the appointment, make a new one. Your baby can continue the immunisation schedule without having to start again.

What happens at the appointment?

The Practice Nurse (or Health Visitor or GP) will explain about the immunisations and answer your questions. With babies, the injections is given into the thigh and in children over 12 months old the upper arm is usually used.

If some diseases have disappeared from this country, why do we need to immunise against them?

In the UK, these diseases are kept at bay by high immunisation rates. Around the world, more than two million people a year die from infectious diseases that can be prevented by widely used vaccines, with 1.4 million of these being children under five years old. Most of these deaths could be prevented by immunisation.

As more people travel abroad and more people come to visit this country, there is a risk that these diseases will come back into the UK. These diseases may spread to people who haven't been immunised so your baby is at greater risk if he or she has not been protected. Immunisation doesn't just protect your baby – it also helps to protect your family and the whole community especially those who, for medical reasons, can't be immunised.

Remember, it's never too late to have your baby immunised. If your baby has missed an immunisation and is older than the recommended ages, talk to your Practice Nurse, Health Visitor or GP to arrange for them to be immunised.

How do we know that vaccines are safe?

Before they are allowed to be used, all medicines (including vaccines) are thoroughly tested to assess how safe and effective they are. After they have been licensed, the safety of vaccines continues to be monitored. Any rare side effects that are discovered can then be assessed further. All medicines can cause side effects, but vaccines are among the very safest. Research from around the world shows that immunisation is the safest way to protect your baby's health.

I am worried that my baby will be upset by having an injection

Your baby might cry and be upset for a few minutes, but they will usually settle down after a cuddle.

Will my baby have any side effects from the injection?

Some babies will have side effects. They might:

- have redness, swelling or tenderness where they had the injection, (this will slowly disappear on its own);
- be a bit irritable and feel unwell; or
- have a temperature (fever).

What is a fever?

A fever is a temperature over 37.5°C. Fevers are quite common in young children, but are usually mild. If your baby's face feels hot to the touch and they look red or flushed, he or she might have a fever. You could check his or her temperature with a thermometer.

If your baby has a raised temperature and appears unwell:

- give them paracetamol or ibuprofen liquid (it is important that you follow the instructions on the bottle);
- give him or her plenty to drink;
- make sure they are not over dressed or wrapped up in too many layers;
- check that the temperature of the room feels comfortable and not too warm (about 18 – 21°c).

If your child's temperature stays high or you are worried, contact your Practice Nurse, Health Visitor or GP.

It is important that you only give the paracetamol or ibruprofen liquid if your baby has a raised temperature and appears unwell after the vaccination.

They should not be given, either before or after the vaccination, as a 'just in case' measure, as the vaccine may not work so well.

Remember, never give medicines that contain aspirin to children under 16.

If you are worried about your baby, trust your instincts. Speak to your GP practice or call NHS Direct Wales on **0845 46 47**.

Call the practice immediately if, at any time, your baby:

- has a temperature of 39°C or above; or
- has a fit (see page 12).

If the practice is closed and you can't contact a doctor any other way, trust your instincts and go to the emergency department of your nearest hospital.

I'm worried that my baby may have allergies. Can he or she have the vaccine?

Yes. Asthma, eczema, hay fever, food intolerances and allergies do not prevent your baby having any vaccine in the routine childhood immunisation programme. If you have any questions speak to your Practice Nurse, Health Visitor or GP.

Are some babies allergic to vaccines?

Very rarely, a person can have an allergic reaction soon after immunisation. This reaction may be a rash or itching affecting part or all of the body. Those giving the vaccine will know how to treat this. It does not mean that your baby should stop having immunisations.

Even more rarely, individuals can have a severe reaction within a few minutes of the immunisation that causes breathing difficulties and can cause a collapse. This is called an anaphylactic reaction. A recent study has shown that only one anaphylactic reaction occurs in about a million immunisations. Those who give immunisations are trained to deal with anaphylactic reactions and children recover completely with prompt treatment.

An anaphylactic reaction is a severe and immediate allergic reaction that needs urgent medical attention.

Are there any reasons why my baby should not be immunised?

There are very few reasons why babies cannot be immunised. The vaccines should not be given to babies who have had:

- a confirmed anaphylactic reaction to a previous dose of the vaccine; or
- a confirmed anaphylactic reaction to neomycin, streptomycin, or polymixin B (antibiotics that may be added to vaccines in tiny amounts).

In general, children who are *immunosuppressed* should not receive live vaccines. Children who are immunosuppressed include those:

- whose immune system does not work properly because they are undergoing treatment for a serious condition such as a transplant or cancer; or
- who have any condition that affects the immune system such as severe primary immunodeficiency (very rare disease) that means a child is more likely to catch infections.

If this applies to your baby you must tell the person giving the vaccine before the immunisation. They will need to get specialist advice about using live vaccines such as the MMR (and BCG for those who need it). There are no other reasons why vaccines should definitely not be given.

If your baby:

- has a bleeding disorder (for example haemophilia where the blood doesn't clot properly) or
- has had a fit not associated with fever,

speak to the person giving the vaccine before your baby has any immunisation.

What if my baby is ill on the day of the appointment?

If your baby has a minor illness without a fever – such as a cold – the immunisations should be given as normal. If your baby is ill with a fever, put off the immunisation until he or she has recovered. This is to avoid the fever being associated with the vaccine, or the vaccine increasing the fever he or she already has.

What are fits?

Fits are also called seizures or convulsions in which a child starts shaking or becomes rigid (stiff) and may become unconscious.

Some are associated with fever and some are not. Seizures associated with fever (may be called a febrile seizure or febrile convulsion) are rare in the first six months of life and are most common in the second year of life. After this age, they become less frequent and are rare after the age of five years.

Most children who have febrile seizures recover fully. When a baby has a seizure within a short time after immunisation, it might not have been caused by the vaccine or the fever. It could be due to an underlying medical condition. If your baby has a fit after an immunisation, contact your GP. You may be referred to a specialist for advice about further investigations and future immunisations. If the practice is closed or if you can't contact them go straight to the emergency department of your nearest hospital.

My baby was born early. When should premature babies have their first immunisation?

Premature babies may be at greater risk of infection. They should be immunised in line with the recommended schedule from two months after birth, no matter how premature they were.

Can my child get the disease from the vaccine?

No, this isn't possible. In the inactivated (killed) vaccines a dead virus or bacteria – or part of a virus or bacteria – is present and this can't cause disease. With live vaccines (such as MMR and BCG), some children get what appears to be a mild case of disease. For example, they might get what looks like a measles rash, but this isn't harmful and can actually show that the vaccine is working.

Does my baby have to be immunised?

In the UK, parents decide whether or not to have their baby immunised. Vaccination is recommended because it gives your baby protection against serious diseases, most of which can kill.

Around the world, many children are now routinely protected with vaccines. Because of this, some of the world's most serious diseases may soon disappear.

How long do I have to wait before I can take my baby swimming?

You can take your baby swimming at any time before and after their immunisation.

Are there other ways to immunise my baby?

There is no other proven, effective way to immunise your baby. The Faculty of Homeopathy (the registered organisation for doctors qualified in homeopathy) follows the UK Health Departments' guidelines and advises parents to have their children immunised with standard vaccines, unless there are medical contraindications. For more information, visit www.trusthomeopathy.org

Why is the immunisation programme changed from time to time?

Immunisation programmes are regularly reviewed to make sure that all children are offered protection against preventable diseases. As new vaccines become available, or research shows that giving existing vaccines at different times improves protection, the programme will be changed. Recent changes to the UK programme have been:

- replacing the pneumococcal vaccine (PCV) that provided protection against seven strains of pneumococcal bacteria with PCV13 that protects against an additional six strains; and
- combining the vaccinations previously given in two sessions at 12 and 13 months of age into one session between 12 and 13 months of age.

More about the diseases and the vaccines

DTaP/IPV/Hib vaccine

Your baby should be immunised with DTaP/IPV/Hib vaccine when they are two, three and four months old. This vaccine protects against five different diseases – diphtheria, tetanus, pertussis (whooping cough), polio and *Haemophilus influenzae* type b (Hib). Your child should have a Hib booster (in combination with MenC) between 12 and 13 months of age; boosters against diphtheria, tetanus, pertussis and polio before they start school; and a further tetanus, diphtheria and polio booster from 13 years of age and 18 years.

How effective is the DTaP/IPV/Hib vaccine?

Studies have shown that the DTaP/IPV/Hib vaccine is very effective in protecting your baby against these five serious diseases. Further doses are needed to extend this protection as your child grows up.

What is diphtheria?

Diphtheria is a serious disease that usually begins with a sore throat and can quickly cause breathing problems. It can damage the heart and nervous system and, in severe cases, can kill. Before the diphtheria vaccine was introduced in this country, there were up to 70,000 cases a year, causing up to 5,000 deaths.

What is tetanus?

Tetanus is a disease affecting the nervous system that can lead to muscle spasms, cause breathing problems and can kill. It is caused when germs found in soil and manure get into the body through open cuts or burns. Tetanus cannot be passed from person to person.

What is pertussis (whooping cough)?

Pertussis (whooping cough) is a disease that can cause long bouts of coughing and choking, making it hard to breathe. It can last for up to 10 weeks. Babies under one year of age are most at risk – for them the disease is very serious and can kill. It is not usually so serious in older children. Before the pertussis vaccine was introduced, the average number of cases reported each year in the UK was 120,000 and 92 children died in the year before the vaccine was introduced.

What is polio?

Polio is a virus that attacks the nervous system and can cause permanent paralysis of muscles. It can affect the chest muscles or the brain, and can kill. Before the polio vaccine was introduced as many as 8,000 cases occurred in the UK in epidemic years. Due to the continued success of polio vaccination, there have been no cases of natural polio infection in the UK for over 20 years (the last case was in 1984).

What is Hib?

Hib is an infection caused by *Haemophilus influenzae* type b bacteria. It can lead to a number of major illnesses such as blood poisoning (septicaemia), pneumonia and meningitis which can kill if they are not treated quickly. The Hib vaccine only protects your baby against the type of meningitis caused by the *Haemophilus influenzae* type b bacteria – it does not protect against any other type of meningitis. Before the Hib vaccine was introduced, there were about 800 cases in young children every year. Since it has been introduced, the number of children under five years of age with Hib has fallen by 99%.

There are several types of meningitis that can be caused by bacteria and viruses (see the section on meningitis and septicaemia on page 25).

After immunisation with DTaP/IPV/Hib

Your baby might get some of the following side effects, that are usually mild:

- it is quite normal for your baby to be miserable for up to 48 hours after having the injection;
- your baby could develop a mild fever (see page 8);
- you might notice a small lump where your baby had the injection but this will slowly disappear.

If you think your baby has had any other reaction to the vaccine and you are concerned about it, talk to your Practice Nurse, Health Visitor or GP.

Parents and carers can also report suspected side effects of vaccines and medicines through the Yellow Card Scheme. You can do this on-line by visiting www.yellowcard.gov.uk or by calling the Yellow Card hotline on Freephone 0808 100 3352 (Monday to Friday 10.00 to 14.00).

Pneumococcal vaccine (PCV)

Your baby should be immunised with PCV when they are two and four months old.

What is pneumococcal infection?

Pneumococcal (pronounced new-mo-cock-al) infection is one of the commonest causes of meningitis but it also causes ear infections (otitis media), pneumonia and some other serious illnesses.

How effective is PCV?

The vaccine gives some protection against these but it doesn't protect against all types of pneumococcal infection and meningitis caused by other bacteria or viruses (see the meningitis and septicaemia section on page 25).

After immunisation with PCV

The most commonly reported adverse reactions are those around the injection site (sore, red, swollen area), fever, irritability, decreased appetite and disturbed sleep pattern (see also page 8).

MenC vaccine

Your baby should be immunised with MenC vaccine when they are three and four months old. This vaccine protects against meningitis and septicaemia (blood poisoning) caused by meningococcal group C bacteria. Before the vaccine was introduced, this disease caused about 1,500 cases and 150 deaths each year. MenC vaccine does not protect against meningitis caused by other bacteria or by viruses (see page 25).

How effective is the MenC vaccine?

Since the vaccine was introduced, the number of babies under the age of one with group C disease has fallen by about 99%. A booster dose of MenC in the second year of life is needed to provide longer-term protection.

Both meningitis and septicaemia are very serious. See page 25 for descriptions of the diseases, their signs and symptoms, and what to do about them.

After immunisation with MenC vaccine

After this vaccination it is very common for a baby to have some redness, swelling or tenderness in the area where they had the injection. Some babies may become irritable, have disturbed sleep, vomit, or go off their food.

Hib/MenC booster vaccine

Your baby will need a dose of the combined Hib/MenC vaccine between 12 and 13 months of age to boost their protection against *Haemophilus influenzae* type b (Hib) and meningococcal C infections. This booster will be given as a single injection at the same time as PCV and MMR vaccine to protect your child through early childhood.

After immunisation with Hib/MenC booster

After this vaccination it is very common for babies to have redness, swelling or tenderness where they had the injection. It is also common for babies to be irritable, drowsy, go off their food and have a mild fever.

MMR vaccine

The MMR vaccine protects against measles, mumps and rubella (German measles). Your baby should have the first dose of MMR vaccine between 12 and 13 months of age – this is when the immunity a baby had from his or her mother will have completely faded. The vaccine is given at the same time as their Hib/MenC and PCV vaccinations. It is given again when children are aged around three years and 4 months.

The vaccine contains weakened types of live measles, mumps and rubella viruses. Because the viruses are weakened, people who have had the vaccine cannot catch the diseases from the vaccines or infect other people.

How effective is the MMR vaccine?

Since it was introduced in the UK in1988, the MMR vaccine has almost wiped out the three diseases in young children.

What is measles?

Measles is one of the most infectious diseases known and is caused by a virus. Nearly everyone who catches it will have a high fever, a rash and generally be unwell. Children often have to spend about five days in bed and could be off school for 10 days. Adults are likely to be ill for longer. It is not possible to tell who will be seriously affected by measles. It is common for children who catch measles to have complications. The most common complications include ear problems, chest infections, diarrhoea and fits. More rare complications include encephalitis (infection of the brain), and brain damage. In very serious cases, measles can kill. In 1987 (the year before the MMR was introduced in the UK), 86,000 children caught measles and 16 died.

How is it spread?

A cough or a sneeze can spread the virus over a wide area. Because it is so infectious, the chances are your child will get measles if he or she is not protected and is exposed to someone with measles.

What is mumps?

Mumps is caused by a virus that can lead to fever, headache, and painful, swollen glands in the face, neck and jaw. It can result in permanent deafness, viral meningitis (infection of the lining of the brain) and encephalitis. It commonly causes painful swelling of the testicles in adult and adolescent males and can affect the ovaries in females. Mumps lasts about 7 to 10 days. Before the MMR vaccine was introduced, about 1,200 people a year went into hospital because of mumps.

How is it spread?

Mumps is spread in the same way as measles. It is about as infectious as flu.

What is rubella?

Rubella (German measles) is also caused by a virus. In children it is usually mild and can go unnoticed. It causes a short-lived rash, swollen glands and a sore throat. Rubella is very serious for unborn babies. It can seriously damage their sight, hearing, heart and brain. This condition is called congenital rubella syndrome (CRS). In the five years before the MMR vaccine was introduced, about 43 babies a year were born in the UK with congenital rubella syndrome.

The greatest danger from rubella infection is to unborn babies in the first three months of pregnancy. If a woman is infected at that time, in 9 out of 10 cases her baby will be born deaf or blind, with a damaged heart, or mentally impaired. Miscarriages are also common among women who are infected with rubella in pregnancy. In many of the cases, pregnant women caught rubella from their own or their friends' children.

How is it spread?

Rubella is spread in the same way as measles and mumps. It is about as infectious as flu.

After vaccination with MMR

The three different viruses in the vaccine act at different times and may produce the following side effects after the first dose:

- 6 to 11 days after the immunisation, as the measles part of the vaccine starts to work, it is very common to get a fever. Some children develop a measles-like rash and some go off their food (for advice on treating a fever, see page 9);
- about 1 in every 1,000 children immunised may have a fit caused by a fever. This is called a febrile convulsion (see page 12). However, if a child who has not been immunised gets measles, they are five times more likely to have a fit;
- uncommonly, children may get mumps-like symptoms (fever and swollen glands) about three weeks after their immunisation as the mumps part of the vaccine starts to work;
- very rarely children may get a rash of small bruise-like spots in the six weeks after the vaccination. This is usually caused by the measles or rubella parts of the vaccine. If you see spots like these, take your child to your GP practice to be checked and for advice about how to deal with the rash;
- fewer than 1 child in a million may develop encephalitis after the vaccination but there is very little evidence that it is actually caused by the vaccine. However, if a child who has not been vaccinated catches measles, the chance of developing encephalitis is about 1 in 1,000.

Side effects after the second dose are even less common and usually milder (see also page 16).

Egg allergies

The MMR vaccine can be given safely to children who have had a severe allergic reation (anaphylactic reaction) to egg. If you have any concerns, talk to your Practice Nurse, Health Visitor or GP.

Pneumococcal vaccine (PCV)

Your child should be immunised with their booster dose of PCV between 12 and 13 months of age to provide longer-term protection against pneumococcal infection.

After immunisation with the PCV booster

The most commonly reported adverse reactions are injection site reactions (sore, red, swollen area), fever, irritability, decreased appetite, and increased or decreased sleep (see also page 8).

Will giving my baby MMR and PCV at the same time overload their immune system?

No. From birth, babies' immune systems protect them from the germs around them. Without this protection, they would not be able to resist infection with the many thousands of bacteria and viruses that cover their skin, nose, throat and intestines. This protection carries on throughout life.

In theory, a baby could respond effectively to about 10,000 vaccines at any one time. The baby's immune system can and does easily cope with having several vaccines at the same time.

Other Immunisations

BCG vaccine – protecting against tuberculosis (TB)

The BCG vaccine is not part of the immunisation programme for all children. It is offered to those babies who are more likely than others to come into close and prolonged contact with someone with TB. The vaccination is offered within a few days of birth.

What is TB?

TB is an infection that usually affects the lungs. It can also affect other parts of the body. Most cases can be cured with treatment. TB can also cause a very serious form of meningitis.

After immunisation

A blister or sore may appear where the injection is given. It will heal gradually and it is best not to cover it up.The sore may leave a small scar, this is normal. If you are worried, or think the sore has become infected, see your GP.

Although TB is no longer common in the UK, worldwide it kills around 1.7 million people a year.

Hepatitis B vaccine – protecting against hepatitis B

The hepatitis B vaccine is not part of the routine childhood immunisation programme. It is currently given to babies whose mothers have hepatitis B to prevent the babies developing the disease. A full course of vaccines is needed for protection. The first one is given at birth, the second at 1 month old, the third at 2 months old, and a booster is given when the baby is 12 months old to provide longer-term protection.

What is hepatitis?

Hepatitis is an infection of the liver caused by a virus. The vaccine protects against the B type of the virus but does not protect against hepatitis caused by other types of the virus.

The hepatitis B virus is passed through infected blood from mothers to their babies.

If a woman is pregnant and has hepatitis B or if she gets the disease during pregnancy, she could pass it on to her baby. The baby might not be ill immediately after birth but has a high chance of becoming a carrier and developing serious liver disease later in life. Some people carry the virus in their blood without knowing it.

Pregnant women in the UK are offered a hepatitis B test during their antenatal care. If a woman has hepatitis B, she should have her baby vaccinated after birth to prevent him or her from becoming infected. It is safe to breastfeed the baby as long as he or she receives the vaccines on time.

After immunisation

The side effects of the hepatitis B vaccine are usually quite mild. There could be some redness, soreness or tenderness where the injection is given. This lasts for a few days (see also page 16).

For further information visit www.immunisation.nhs.uk and enter 'hepatitis b' in the search box.

Watch out for meningitis and septicaemia

Although your child should be immunised as a baby against Hib, meningitis C and some forms of pneumococcal bacteria (all of which cause meningitis and septicaemia), these vaccines will not protect them against other types of meningitis and septicaemia.

Both meningitis and septicaemia (blood poisoning) are very serious. It is important that you recognise the signs and symptoms and know what to do if you see them. Early symptoms of meningitis and septicaemia may be similar to a cold or flu (fever, vomiting, irritability and restlessness). However, those with meningitis or septicaemia can become seriously ill within hours, so it is important to know the signs and symptoms.

What is meningitis?

Meningitis is an infection of the lining of the brain and can be caused by several types of bacteria or viruses.

Infection with meningococcal bacteria can also cause diseases such as, septicaemia, pericarditis (inflammation of the lining of the sac that contains the heart) and arthritis (swelling of the joints).

What is septicaemia?

Septicaemia is a very serious condition in which the blood becomes infected. The signs are cold hands and feet, pale skin, vomiting and being very sleepy or difficult to wake up. These signs can come on quickly. If you suspect that you, your child or someone else has septicaemia, get help urgently. Septicaemia can occur with or without meningitis.

In babies and young children, the main symptoms of meningitis and septicaemia may include:

- severe headache, blotchy skin, getting paler or turning blue;
- an unusual cry, moaning;

- being fretful, not liking to be handled;
- a tense bulging fontanelle (see the glossary on page 28);
- feeling drowsy and not responding to you;
- refusing to eat/feed and vomiting;
- fever, cold hands and feet;
- neck stiffness, a dislike of bright lights;
- convulsions/fits;
- breathlessness, fast or unusual patterns of breathing, grunting;
- skin that is pale, blotchy or turning blue;
- cold hands and feet, stomach/joint/muscle pain;
- red or purple spots that do not fade under pressure (do the glass test explained on page 27).

In older children, adolescents and adults, the symptoms of meningitis and septicaemia may include:

- a stiff neck;
- a very bad headache (although this on its own is not a reason to get medical help);
- dislike of bright lights;
- vomiting;
- a fever;
- drowsy, difficult to wake;
- confusion and irritability;
- convulsions, fits;
- red or purple spots that do not fade under pressure (do the glass test);
- pale, blotchy skin;
- cold hands and feet/shivering, rapid or unusual breathing, limb/joint/muscle pain, stomach pain/diarrhoea.

It is important to remember that not everyone will develop all the symptoms listed. If an individual develops some of the symptoms listed, especially red or purple spots, get medical help urgently. If you can't get in touch with your practice or you are still worried after getting advice, trust your instincts and take your child to the emergency department of your nearest hospital.

The glass test

Press the side of a clear drinking glass firmly against the rash so you can see if the rash fades and loses colour under pressure. If it doesn't change colour, contact your practice immediately.

Where can I get more information about meningitis?

The Meningitis Research Foundation and the Meningitis Trust both provide information about meningitis.

Meningitis Research Foundation – phone the free 24-hour helpline on 080 8800 3344 or visit the website at www.meningitis.org

Meningitis Trust – phone the 24-hour helpline on 0845 6000 800 or visit the website at www.meningitis-trust.org

You can also ask your Practice Nurse, Health Visitor or GP for advice or call NHS Direct Wales on 0845 46 47

image provided by the Meningitis Trust.

Glossary – describes some of the terms you might come across when your child has their immunisations.

Acellular pertussis vaccine	Whooping cough vaccine containing parts of the pertussis bacterial cells.
Anaphylactic reaction	An immediate and severe allergic reaction that needs urgent medical attention.
Bacterium	A single germ. Many germs are called bacteria.
Convulsion	Also known as a fit. A medical condition where the muscles contract and relax rapidly resulting in uncontrollable shaking and usually unconsciousness.
dTaP/IPV & DTaP/IPV vaccines	The pre-school immunisations that protect against four diseases – diphtheria, tetanus, pertussis and polio. They contain acellular pertussis vaccine and inactivated polio vaccine.
Encephalitis	Swelling of the brain.
Fit	Also known as a convulsion (see above).

Fontanelle

Space between the bones at the top of a baby's skull. This generally closes at about two years old.

Hib/MenC vaccine

A combined vaccine that protects against Haemophilus influenzae type b infections and meningococcal C infections.

Inactivated polio vaccine (IPV)

A polio vaccine made from viruses that have been killed.

MenC vaccine

A single vaccine that protects against meningococcal C infections.

Neomycin, Polymyxin and Streptomycin

Antibiotics put into vaccines to prevent contamination by bacteria.

Pneumococcal conjugate vaccine (PCV 13)

A vaccine that protects against infections caused by 13 types of pneumococcal bacteria.

Td/IPV

A combined vaccine that protects against three diseases – tetanus, diphtheria and polio. It contains tetanus, low-dose diphtheria and inactivated polio vaccine. It is given to young people from 13 years of age to top up their levels of protection.

Vaccine Damage Payment Scheme

Most immunisations are given without any trouble at all, but very rarely there may be problems. This Vaccine Damage Payment Scheme is designed to help with the present and future financial burdens of the person affected by the vaccination and their family. It covers all the vaccines described in this booklet except the hepatitis B vaccine. There are several conditions that need to be met before a payment can be made. If you need more information please contact:

Vaccine Damage Payments Unit
Department for Work and Pensions
Palatine House
Lancaster Road
Preston
PR1 1HB

Phone: 01772 899944

E-mail: CAU-VDPU@dwp.gsi.gov.uk

Routine childhood immunisation programme

Each vaccination is given as a single injection into the muscle of the thigh or upper arm.

Age to immunise	Diseases protected against	Vaccines given
Two months old	diphtheria, tetanus, pertussis, polio and *Haemophilus influenzae* type b (Hib) pneumococcal infection	DTaP/IPV/Hib and PCV
Three months old	diphtheria, tetanus, pertussis, polio and *Haemophilus influenzae* type b (Hib) meningitis C (meningococcal group C)	DTaP/IPV/Hib and MenC
Four months old	diphtheria, tetanus, pertussis, polio and *Haemophilus influenzae* type b (Hib) meningitis C pneumococcal infection	DTaP/IPV/Hib and MenC and PCV

Age to immunise	Diseases protected against	Vaccines given
Between 12 and 13 months old (within a month of the first birthday)	*Haemophilus influenzae* type b (Hib) and meningitis C pneumococcal infection measles, mumps and rubella	Hib/MenC and PCV and MMR
Three years four months old	diphtheria, tetanus, pertussis and polio measles, mumps and rubella	DTaP/IPV or dTaP/IPV and MMR
Girls aged 12–13 years old	cervical cancer caused by human papillomavirus	HPV
From 13 years old	tetanus, diphtheria and polio	Td/IPV

Non-routine immunisations for at-risk children

Age to immunise	Diseases protected against	Vaccines given
At birth (for babies who are more likely to come into contact with TB than the general population).	tuberculosis	BCG
At birth, 1 month, 2 months and 12 months old (for babies whose mothers have hepatitis B).	hepatitis B	Hep B
Each year between September and November (for children with chronic illness that increases the risk of flu).	influenza (flu)	Flu
From 2 years of age (for children with chronic illness that increases the risk of pneumococcal disease).	pneumococcal disease	PPV
(for the siblings of children susceptible to severe chicken pox).	chicken pox	Varicella

Where can I get more information?

Visit: http://www.nhsdirect.wales.nhs.uk/ or phone NHS Direct Wales on 0845 46 47

You can also speak to your GP or Midwife.

Copies of this leaflet are available by e-mailing hplibrary@wales.nhs.uk or telephoning 0845 606 4050

This leaflet is available on the Welsh Government immunisation website at www.wales.gov.uk/immunisation

Any queries about this leaflet can be addressed to:

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